

CLAIMS:

- Int. G1* →
1. In an ion chromatography system wherein a desired ion species in a sample is separated by a separating means; an eluted liquid from the separating means is introduced into a suppressor means, in which an ion exchanger is held, to reduce the electric conductivity of the eluted liquid, and the eluted liquid from the suppressor is introduced into a detector to detect desired ions, the ion chromatography system being characterized in that the suppressor means is provided with a main body for accommodating an ion exchanger ready for measuring; a chamber for accommodating a virgin ion exchanger, and an automatic exchanging means which discharges a used ion exchanger from the main body after an optional number of times of measurements and supplies the ion exchanger accommodated in the chamber to the main body.
2. The ion chromatography system according to Claim 1, wherein the suppressor means comprises a 6-way switching rotary valve having 3 rotary grooves a, b and c, a chamber for accommodating a virgin ion exchanger in a slurry state, a liquid transferring tank which accommodates a transferring liquid for introducing the ion exchanger in a slurry state in the chamber into the rotary valve, and a liquid transferring means for supplying the transferring liquid; a flow passage from the separating means is connected to a flow passage to the detector by means of the rotary groove a; a flow

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passage from the liquid transferring means to the chamber
is connected to a flow passage to a third rotary groove
by means of the rotary groove b; a flow passage from the
rotary groove b is connected to a flow passage to the
5 outside of the main body by means of the rotary groove c,
and each filter which prevents the ion exchanger from
passing through is provided at a side of the separating
means with respect to the rotary groove a, at a side of
the detecting means with respect to the rotary groove a
10 and at a side of the rotary groove c with respect to the
rotary groove b.

3. The ion chromatography system according to Claim 1,
wherein the suppressor means comprises a tube having both
ends which are tightly closed with sealing materials
15 capable of passing only a string-like ion exchanger; a
chamber for accommodating a virgin string-like ion
exchanger, and a supply means which introduces the
string-like ion exchanger in the chamber into the tube
from its one end and discharges it from the other end of
20 the tube; a portion in the vicinity of one end of the
tube is connected to a flow passage from the separating
means, and a portion in the vicinity of the other end of
the tube is connected to the detecting means.

4. The ion chromatography system according to Claim 1,
25 wherein the exchanging means is to replace the used ion
exchanger by a new ion exchanger every predetermined
number of times of measurement.

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5. The ion chromatography system according to Claim 1, wherein the ion exchanger is an ion exchange resin or ion exchange fibers.

Sub. Gr 5 6. An ion exchanging means for holding an ion exchanger which comprises a holding section for accommodating an ion exchanger ready for measuring, a chamber for accommodating a virgin ion exchanger, and an automatic exchanging means which discharges a used ion exchanger from the main body after an optional number of times of
10 measurements and supplies the ion exchanger accommodated in the chamber to the main body.

7. The ion exchanging means according to Claim 6, wherein the ion exchanging means comprises a 6-way switching rotary valve having 3 rotary grooves a, b and c,
15 a chamber for accommodating a virgin ion exchanger in a slurry state, a liquid transferring tank which accommodates a transferring liquid for introducing the ion exchanger in a slurry state in the chamber into the rotary valve, and a liquid transferring means for
20 supplying the transferring liquid.

8. The ion exchanging means according to Claim 6, wherein the ion exchanging means comprises a tube having both ends which are tightly closed with sealing materials capable of passing only a string-like ion exchanger; a
25 chamber for accommodating a virgin string-like ion exchanger, and a supply means which introduces the string-like ion exchanger in the chamber into the tube

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from its one end and discharges it from the other end of the tube.

9. The ion exchanging means according to Claim 6, wherein the exchanging means is to replace the used ion exchanger by a new ion exchanger every predetermined number of times of measurement.

10. The ion exchanging means according to Claim 6, wherein the ion exchanger is an ion exchange resin or ion exchange fibers.

Sub. G2 cont.

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